U.S. APPLN. NO.: 10/083,362

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1-4. (canceled).

5. (previously presented): A video processing device comprising:

correction amount obtaining means for obtaining a correction amount from

sequentially applied moving images,

image correcting means for subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining means,

image input means for obtaining a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining means, wherein said correction amount obtaining means obtains said correction amount from said frame image and said image correcting means subjects said frame image to quality improving correction processing based on said correction amount,

lapse of fixed time detecting means for counting the number of frames from a frame image whose said correction amount is lastly updated to a current frame image to determine whether the number of frames exceeds a fixed value, and

AMENDMENT UNDER 37 C.F.R. §1.111

U.S. APPLN, NO.: 10/083,362

correction amount update determining means for giving an instruction to update said correction amount when said lapse of fixed time detecting means determines that a fixed time has elapsed.

6. (currently amended): A video processing device comprising:

correction amount obtaining means for obtaining a correction amount from sequentially applied moving images,

image correcting means for subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining means,

image input means for obtaining a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining means, wherein said correction amount obtaining means obtains said correction amount from said frame image and said image correcting means subjects said frame image to quality improving correction processing based on said correction amount, and

eut point detecting means for detecting a cut point indicative of changing change in an image quality of said moving image based on a change of a by comparing feature amounts obtained from each frame of frame images, and correction amount update determining means for giving an instruction to update said correction amount when said cut point detecting means detects said cut point.

7. (previously presented): A video processing device comprising:

U.S. APPLN. NO.: 10/083,362

correction amount obtaining means for obtaining a correction amount from sequentially applied moving images,

image correcting means for subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining means,

image input means for obtaining a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining means, wherein said correction amount obtaining means obtains said correction amount from said frame image and said image correcting means subjects said frame image to quality improving correction processing based on said correction amount,

lapse of fixed time detecting means for counting the number of frames from a frame image whose said correction amount is lastly updated to a current frame image to determine whether the number of frames exceeds a fixed value,

cut point detecting means for detecting a cut point indicative of switching of a scene in said moving image based on a change of a feature amount obtained from each frame image, and

correction amount update determining means for giving an instruction to update said correction amount either when detection of a lapse of a fixed time is made by said lapse of fixed time detecting means or when detection of said cut point is made by said cut point detecting means.

8-13. (canceled).

AMENDMENT UNDER 37 C.F.R. §1.111

U.S. APPLN. NO.: 10/083,362

- 14. (currently amended): The video processing device as set forth in claim 6, wherein said eut point detecting means is structured to consider a result of comparison of a between color histograms of said frame images generated based on color information of each pixels of said moving image which is conducted on a frame basis as a feature amount and detect a cut point of said moving image based on a change of the feature amount.
 - 15. (previously presented): A video processing device comprising: correction amount obtaining means for obtaining a correction amount from sequentially applied moving images,

image correcting means for subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining means,

image input means for obtaining a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining means, wherein said correction amount obtaining means obtains said correction amount from said frame image and said image correcting means subjects said frame image to quality improving correction processing based on said correction amount, and

cut point detecting means for detecting a cut point indicative of switching of a scene in said moving image based on a change of a feature amount obtained from each frame image, and correction amount update determining means for giving an instruction to update said correction amount when said cut point detecting means detects said cut point,

U.S. APPLN. NO.: 10/083,362

wherein said cut point detecting means is structured to consider a result of comparison of a color histogram generated based on color information of each pixel of said moving image which is conducted on a frame basis as a feature amount and detect a cut point of said moving image based on a change of the feature amount, and

wherein said cut point detecting means is structured to, at the time of generating said color histogram from said moving image, generate said color histogram after thinning out the image at fixed intervals.

16. (currently amended): A video processing device comprising: image input means for obtaining a frame image from sequentially applied moving

images, and

eut point detecting means for detecting a eut point indicative of changing change in an image quality of said moving image based on a change of a by comparing feature amounts obtained from each frame of frame images.

17. (currently amended): The video processing device as set forth in claim 16, wherein

said eut point detecting means is structured to consider a result of comparison of a between color histograms of said frame images generated based on color information of each pixels of said moving image which is conducted on a frame basis as a feature amount and detect a cut point of said moving image based on a change of the feature amount.

AMENDMENT UNDER 37 C.F.R. §1.111

U.S. APPLN. NO.: 10/083,362

18. (previously presented): A video processing device comprising:

image input means for obtaining a frame image from sequentially applied moving images, and

cut point detecting means for detecting a cut point indicative of switching of a scene in said moving image based on a change of a feature amount obtained from each frame image,

wherein said cut point detecting means is structured to consider a result of comparison of a color histogram generated based on color information of each pixel of said moving image which is conducted on a frame basis as a feature amount and detect a cut point of said moving image based on a change of the feature amount, and

wherein said cut point detecting means is structured to, at the time of generating said color histogram from said moving image, generate said color histogram after thinning out the image at fixed intervals.

19-30. (canceled).

31. (previously presented): A video processing method comprising the steps of:
obtaining a correction amount from sequentially applied moving images,
conducting quality improving correction with respect to said applied moving
image based on the obtained correction amount, and

U.S. APPLN. NO.: 10/083,362

checking said input moving image on a frame basis and when a cut point indicative of switching of a scene in said input moving image is detected, updating a correction amount,

at the detection of said cut point, considering a result of comparison of a color histogram generated based on color information of each pixel of said moving image which is conducted on a frame basis as a feature amount and detecting a cut point of the moving image based on a change of the feature amount, and

when detecting said cut point, at the time of generating said color histogram from said frame image, generating said color histogram after thinning out the image at fixed intervals.

- 32. (canceled).
- 33. (currently amended): A video processing method comprising the steps of:

 obtaining a frame image from sequentially applied moving images, and

 detecting a cut-point indicative of changing change in an image quality of said

 moving image based on a change of a by comparing feature amounts obtained from each frame

 of frame images.
- 34. (currently amended): The video processing method as set forth in claim 33, wherein

at said cut point detecting step, a result of comparison of a between color histograms of said frame images generated based on color information of each pixels of said

AMENDMENT UNDER 37 C.F.R. §1.111

U.S. APPLN. NO.: 10/083,362

moving image which is conducted on a frame basis is considered as a feature amount and a cut point of said moving image is detected based on a change of the feature amount.

35. (previously presented): A video processing method comprising the steps of: obtaining a frame image from sequentially applied moving images, and detecting a cut point indicative of switching of a scene in said moving image

wherein at said cut point detecting step, a result of comparison of a color histogram generated based on color information of each pixel of said moving image which is conducted on a frame basis is considered as a feature amount and a cut point of said moving image is detected based on a change of the feature amount, and

based on a change of a feature amount obtained from each frame image,

wherein at said cut point detecting step, at the time of generating said color histogram from said moving image, said color histogram is generated after thinning out the image at fixed intervals.

- 36. (canceled).
- 37. (canceled).
- 38. (currently amended): A video processing program for controlling a computer to execute video processing, comprising the functions of:

obtaining a frame image from sequentially applied moving images, and

AMENDMENT UNDER 37 C.F.R. §1.111 U.S. APPLN. NO.: 10/083,362

detecting a cut point indicative of changing change in an image quality of said input moving image.

- 39. (canceled).
- 40. (canceled).
- 41. (previously presented): A video processing method comprising the steps of:
 a correction amount obtaining step of obtaining a correction amount from sequentially applied moving images,

an image correcting step of subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining step,

an image input step of obtaining said a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining step, wherein said correction amount obtaining step obtains said correction amount from said frame image and said image correcting step subjects said frame image to quality improving correction processing based on said correction amount,

lapse of fixed time detecting step of counting the number of frames from a frame image whose said correction amount is lastly updated to a current frame image to determine whether the number of frames exceeds a fixed value, and

correction amount update determining step of giving an instruction to update said correction amount when said lapse of fixed time detecting step determines that a fixed time has elapsed.

AMENDMENT UNDER 37 C.F.R. §1.111 U.S. APPLN. NO.: 10/083,362

42. (previously presented): A video processing method comprising the steps of: correction amount obtaining step of obtaining a correction amount from sequentially applied moving images,

image correcting step of subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining step,

image input step of obtaining a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining step, wherein said correction amount obtaining step obtains said correction amount from said frame image and said image correcting step subjects said frame image to quality improving correction processing based on said correction amount,

lapse of fixed time detecting step of counting the number of frames from a frame image whose said correction amount is lastly updated to a current frame image to determine whether the number of frames exceeds a fixed value,

cut point detecting step of detecting a cut point indicative of switching of a scene in said moving image based on a change of a feature amount obtained from each frame image, and

correction amount update determining step of giving an instruction to update said correction amount either when detection of a lapse of a fixed time is made by said lapse of fixed time detecting step or when detection of said cut point is made by said cut point detecting step.

AMENDMENT UNDER 37 C.F.R. §1.111

U.S. APPLN. NO.: 10/083,362

43. (currently amended): A video processing method comprising the steps of:

a correction amount obtaining step of obtaining a correction amount from

sequentially applied moving images,

an image correcting step of subjecting an input moving image to quality

improving correction processing based on a correction amount obtained by said correction

amount obtaining step,

an image input step of obtaining said a frame image from sequentially applied

moving images and outputting the image to said correction amount obtaining step, wherein at

said correction amount obtaining step, obtaining said correction amount from said frame image

and, at said image correcting step, subjecting said frame image to quality improving correction

processing based on said correction amount, and

a cut point detecting step of detecting a cut point indicative of changing change in

an image quality of said moving image based on a change of a by comparing feature amounts

obtained from each frame of said frame images, and correction amount update determining step

of giving an instruction to update said correction amount when said cut point detecting step

detects said cut point.

44. (currently amended): A video processing program for controlling a computer to

execute video processing, comprising the functions of:

a correction amount obtaining function of obtaining a correction amount from

sequentially applied moving images,

AMENDMENT UNDER 37 C.F.R. §1.111

U.S. APPLN. NO.: 10/083,362

an image correcting function of subjecting an input moving image to quality improving correction processing based on a correction amount obtaining function,

an image input function of obtaining <u>a</u> frame image from sequentially applied moving images and outputting the image to said correction amount obtaining function, wherein at said correction amount obtaining function, obtaining said correction amount from said frame image and, at said image correcting function, subjecting said frame image to quality improving correction processing based on said correction amount, and

a cut point detecting function of detecting a cut point indicative of changing change in an image quality of said moving image based on a change of a by comparing feature amounts obtained from each frame of said frame images, and correction amount update determining function of giving an instruction to update said correction amount when said cut point detecting function detects said cut point.

45. (currently amended): A video processing device comprising:

correction amount obtaining means for obtaining a correction amount from sequentially applied moving images,

an image correcting means for subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining means,

an image input means for obtaining a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining means, wherein

AMENDMENT UNDER 37 C.F.R. §1.111

U.S. APPLN. NO.: 10/083,362

said correction amount obtaining means obtains said correction amount from said frame image and said image correcting means subjects said frame image to quality improving correction processing based on said correction amount, and

a cut point detecting means for detecting a cut point indicative of changing change in an image quality of said input moving image.

46. (previously presented): The video processing device as set forth in claim 45, wherein

said changing in an image quality is caused by video sources or video shooting conditions.

47. (currently amended): A video processing method comprising the steps of: a correction amount obtaining step of obtaining a correction amount from sequentially applied moving images,

an image correcting step of subjecting an input moving image to quality improving correction processing based on a correction amount obtained by said correction amount obtaining step,

an image input step of obtaining a frame image from sequentially applied moving images and outputting the image to said correction amount obtaining step, wherein at said correction amount obtaining step, obtaining said correction amount from said frame image and, at said image correcting step, subjecting said frame image to quality improving correction processing based on said correction amount, and

AMENDMENT UNDER 37 C.F.R. §1.111 U.S. APPLN. NO.: 10/083,362

a cut point-detecting step of detecting a cut point indicative of changing-change in an image quality of said input moving image.

48. (previously presented): The video processing method as set forth in claim 47, wherein

said changing in an image quality is caused by video sources or video shooting conditions.